THE FARMER WHO GROWS SOLAR POWER

TEXT *Ralf Bagner*
PHOTO *John Mattisson*

24.05.2016

SWEDEN He had been interested in renewable energy for a long time and in 2014 Mikael Saksi decided to install 2,000 square metres of solar panels on his farm on the outskirts of Norrköping, making him one of Sweden's biggest private generators of solar power. He now sells all the power he generates directly to Vattenfall.

Mikael Saksi has a lot of energy. The dentist, who has his own private practice in Norrköping, loves motocross bikes. He has all Kawasaki's factory bikes from 1973 to 1978, a Yamaha and a Husqvarna in his attic.

In his basement he has his own microbrewery. The beer is produced from his own hops and the filled bottles are stored in a bunker on the farm.

"NO MAINTENANCE"

Another of his interests is renewable energy. When he and his family moved to Vikbolandet on the outskirts of Norrköping in 2006, he had the idea of building his own wind turbine.

"When I eventually made the decision in 2014, I went for a solar farm instead. It was too risky to build a wind turbine on its own, plus the mains connection was very expensive. In principle, solar panels don't need any maintenance and the connection was far cheaper," explains Mikael Saksi, as he shows me round the 2,000 square

Facts about Mikael Saksi's solar farm

Number of panels: 1,232
Output: 314 kWp
Annual power generation: 330 MWh

Facts about solar panels

According to the Swedish Energy Agency, Sweden has as much sunshine in the summer as the countries in the Mediterranean. This is due to the long daylight hours and the short nights.

A huge amount of solar energy is absorbed by the earth. The roof of a standard detached house in Sweden

http://news.vattenfall.com/en/article/farmer-who-grows-solar-power

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TEXT *Annemar Havers*

13.06.2016

NETHERLANDS From now on, sharing energy will be as easy as booking a room through the Airbnb website or ordering transportation via the Uber network. The energy marketplace Powerpeers in the Netherlands enables you to choose who you wish to share your self-generated energy with and/or who you wish to purchase self-generated energy from. It might be from your neighbour or the roof of your local sports club.

A marketplace and community where you decide who you receive your energy from and who to supply with your self-generated energy. This concept fits seamlessly into the "sharing economy" trend, a key feature of which is making our possessions available and sharing them with people we know and those we do not, through decentralised networks and marketplaces. Think of networks such as Peerby, through which people lend each other various items of equipment, Airbnb, where people rent or let accommodation, and the transportation company Uber.

According to the independent knowledge and networking platform ShareNL, the "sharing economy" will evolve into a genuine "sharing society" over the next few

Powerpeers

Powerpeers is based on the many-to-many model. Multiple sources of energy can supply power to multiple consumers and vice versa.

Powerpeers therefore brings the interaction of the internet to the energy market. Current conventional energy suppliers, by contrast, use the one-to-many model.

Powerpeers will also grant third parties access to the platform to enable them to offer their products and services.

http://news.vattenfall.com/en/article/power-your-neighbours

SIX SOLAR FARMS TO BE BUILT WITH CROWDFUNDING

TEXT *Sten Feldreich*

22.02.2017

NETHERLANDS Nuon is planning to build six large solar farms next to its existing wind farms and traditional power plants in the Netherlands.

It will be the first time in the Netherlands these energy sources will be combined with solar panels. The plans will be realised by customer participation.

"We are allowing customers to invest in the new solar farms, leading to a more positive business case and better customer satisfaction," says Noortje Bakker, Customer Journey Marketer, explaining how co-operation between customers and Nuon can stimulate sustainable energy supply:

"We can fulfill different customer needs with crowdfunding. Customers want to make smart use of their money and want to reduce their energy costs. By investing in solar farms they will receive an attractive return on their investment."

INCREASED LOYALTY

"Other customers want to make a contribution to sustainable energy and can help in realising a new solar farm. By offering a higher return to Nuon customers and by stimulating sustainable energy, we can increase loyalty amongst our customers."

The customer's financing of the projects will benefit the business cases, because

http://news.vattenfall.com/en/article/six-solar-farms-be-built-crowdfunding

WIND CAPACITY OVERTAKES COAL IN EUROPE

TEXT *Niels Vester*
ILLUSTRATIONS *Source WindEurope*

20.02.2017

EUROPE The European energy hierarchy changed in 2016. For the first time, wind beat coal and now only gas has a bigger electricity capacity in Europe.

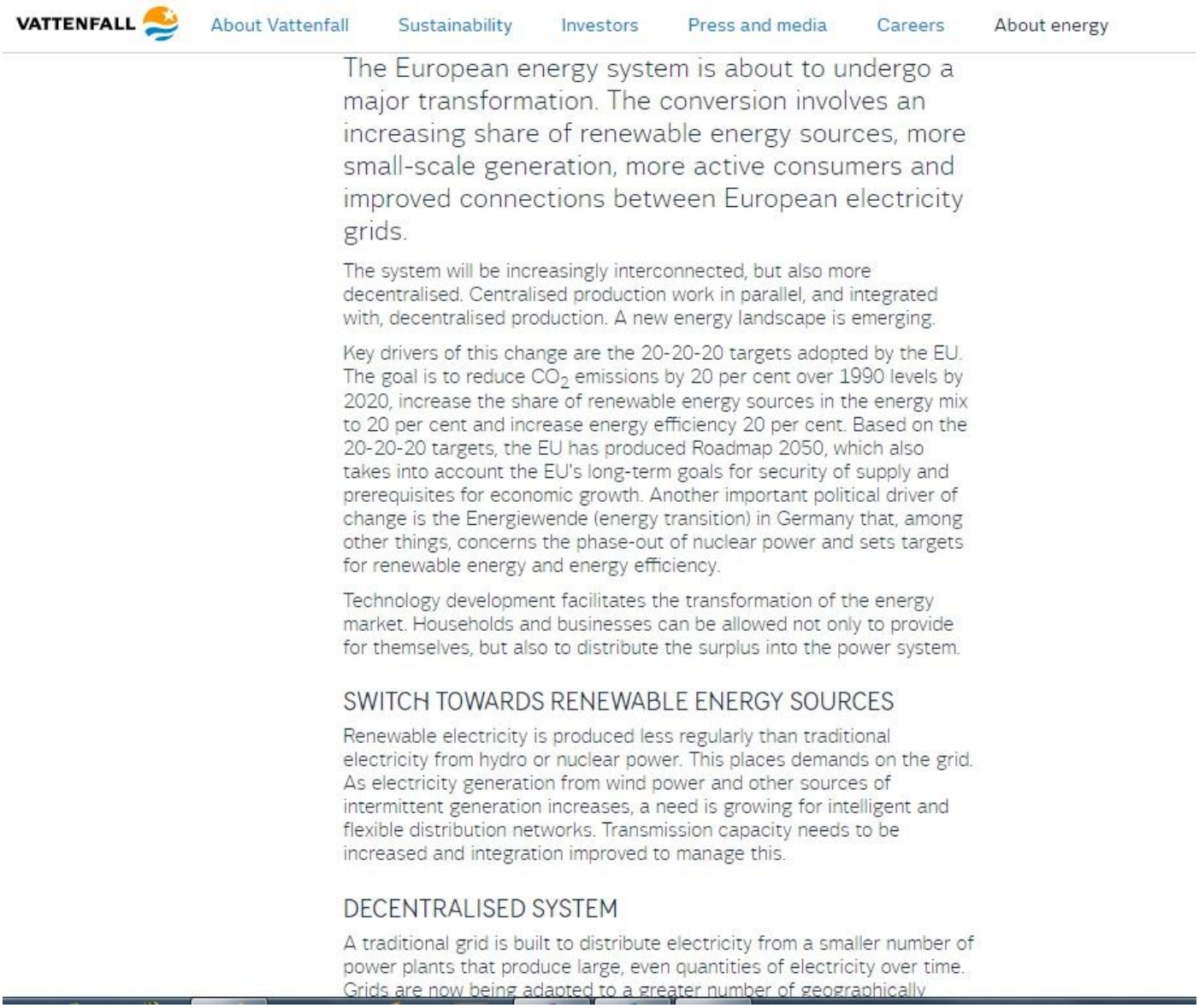
Wind power took a step up the ladder in 2016 to become the second largest source of power generation capacity, although with a small margin. 16.7 per cent of the EU's power generating capacity now belongs to the wind sector as opposed to coal's 16.5 per cent, according to a report published by the European wind organisation WindEurope.

Growth in wind power is a trend that has been seen for the past ten years in Europe with wind overtaking the power generating capacity of fuel oil in 2007, nuclear in 2013, hydro in 2015 and now in 2016 coal, leaving only gas bigger. In 2016 alone, new wind power capacity amounted to 12.5 GW or 51 per cent of total new power capacity installations in the EU, and considering that 7.6 GW coal capacity was decommissioned at the same time, the new-gained position is not so surprising.

WindEurope's report

Cumulative power capacity in the European Union 2005-2016

http://news.vattenfall.com/en/article/wind-capacity-overtakes-coal-europe



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Sustainable customer solutions

One Tonne Life

Sustainable cities

Uppsala, Sweden

E-mobility (electric mobility)

Smart grids

Production

High performance

Engaged organisation

Society and stakeholders

Policies and management

Sustainability reports

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SUSTAINABLE CITIES

Vattenfall wants to help cities and regions to become as sustainable as possible.

We can offer:

- Grid solutions
- Heating solutions
- Renewable generation solutions
- Electrification of transports
- Attraction of new industries

CONTACT US

If you are interested to hear more about what we can do to help you, please contact Mattias Tingvall, VP Vattenfall Group Business Development.

Vattenfall has been a partner of Hamburg for 120 years and supports Hamburg's efforts for an energy turnaround.

More about sustainable cities

Read about our partnership with Uppsala

https://corporate.vattenfall.com/sustainability/consumption/sustainable-customer-solutions/sustainable-cities/

The roofs of Berlin are full of energy

Posted October 19, 2010

2 comments

Keywords: Alternative Energy, Design & Architecture, Green Building, Sustainability, Sustainable Cities Exclusive

Posted by:

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At present, about 8,000 roofs in Berlin carry photovoltaic or solar thermal systems. If all suitable roof space of the German capital were consistently fitted with solar arrays, they could provide approximately 3.2 million megawatt-hours of electricity a year. In other words: 500,000 roofs could theoretically generate enough electricity to meet about 77 percent of the private power consumption in Berlin.

This data has been provided by the Berlin Solar Atlas, a project of Berlin Partner GmbH, the German capital's business promotion agency, in association with the Berlin Senate. The Atlas is available online for anyone to consult. The online three-dimensional model of the city shows whether a particular roof is suitable for installing solar panels and how much solar energy it is capable of capturing. Further information also describes the opportunities for avoiding CO2 emissions and the expected costs.

"The integration of such an analysis of a city's solar power potential into a virtual three-dimensional city model is unique worldwide", says Berlin Partner Managing Director René Gurka. "The Solar Atlas points out the huge potential for renewable energies that even tightly-packed cities have, and can help people take advantage of such opportunities."

The Solar Atlas uses the existing 3-D city model of Berlin, which is based on the official geodata of surveying authorities. In addition, all of Berlin's rooftops have been measured by laser and photographed from the air. This – together with additional information including the slope of the roofs, the direction they face in, and the amount of shadow that falls on them as well as further data such as average annual solar exposure and the prices of solar cells – is then used to calculate the solar potential of each individual roof.

http://www.sustainablecitiescollective.com/helmuthziegler/16521/roofs-berlin-are-full-energy